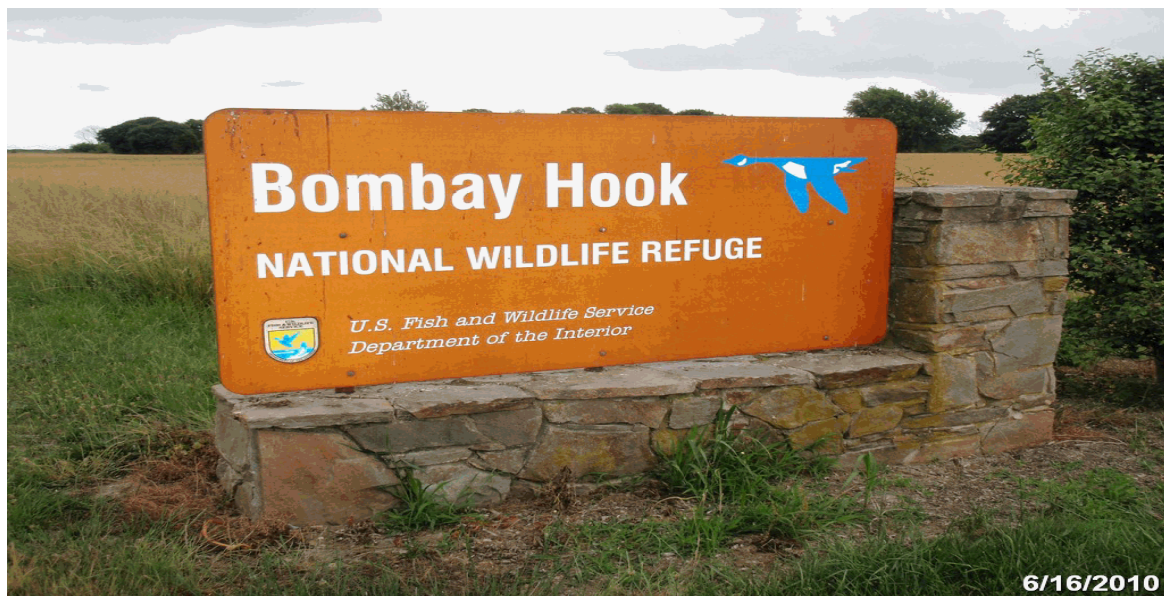


The Trail Inventory of Bombay Hook NWR

Smyrna, DE



Prepared By:
Federal Highway Administration
Central Federal Lands Highway Division
March, 2012



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Bombay Hook NWR

Trail and Trail Feature Summaries

Trail Miles and Percentages by Surface Type and Condition

Trail Surface Type	Excellent		Total
	Miles	%	Miles
Native	0.54	100%	0.54
Gravel	0.39	100%	0.39
Boardwalk	0.28	100%	0.28
Mowed	0.27	100%	0.27
Total	1.48	100%	1.48

Trail Miles and Percentages by Trail Classification and Condition

Trail Classification	Excellent		Total
	Miles	%	Miles
TC2	0.54	100%	0.54
TC3	0.27	100%	0.27
TC4	0.44	100%	0.44
TC5	0.23	100%	0.23
Total	1.48	100%	1.48

*Admin Roads are included in the inventory but are not rated for condition.

Trail Features

Trail Number	Feature Type	Quantity	Grouped Feature	Milepost	Photo
T200	Sign	1	No	0.00	BOHO_C2_0015
T200	Sign	1	No	0.00	BOHO_C2_0014
T200	Other	1	No	0.00	BOHO_C2_9257
T200	Trailhead	1	No	0.00	BOHO_C2_0016
T200	Sign	1	No	0.19	BOHO_C2_0017
T300	Other	1	No	0.00	BOHO_C2_0250
T300	Trailhead	1	No	0.00	BOHO_C2_0001
T300	Sign	1	No	0.08	BOHO_C2_0002
T300	Bench	1	No	0.14	
T300	Sign	2	No	0.15	BOHO_C2_0003
T300	Lookout/Ob Deck	1	No	0.15	
T300	Bench	1	No	0.15	
T301	Max Grade- %	6	No	0.00	
T301	Sign	1	No	0.00	BOHO_C2_0005
T301	Trailhead	1	No	0.00	BOHO_C2_0004
T301	Other	1	No	0.00	BOHO_C2_0251
T301	Begin Section	1	No	0.01	BOHO_C2_9246
T301	Bench	1	No	0.02	
T301	Lookout/Ob Deck	1	No	0.02	
T301	Sign	9	Yes	0.03	BOHO_C2_9248
T301	Begin Section	1	No	0.03	BOHO_C2_0010
T301	Begin Section	1	No	0.05	BOHO_C2_9249
T301	Begin Section	1	No	0.09	BOHO_C2_9250
T301	Begin Section	1	No	0.14	BOHO_C2_9251
T301	Sign	1	No	0.22	BOHO_C2_9253
T301	Bench	4	No	0.22	

T301	Lookout/Ob Deck	1	No	0.33	
T301	Begin Section	1	No	0.34	BOHO_C2_92 54
T302	Trailhead	1	No	0.00	BOHO_C2_00 11
T302	Other	1	No	0.00	BOHO_C2_92 59
T302	Bench	1	No	0.00	
T302	Sign	1	No	0.07	BOHO_C2_00 12
T302	Bench	1	No	0.12	
T302	Lookout/Ob Deck	1	No	0.12	
T400	Other	1	No	0.00	BOHO_C2_92 58
T400	Trailhead	1	No	0.00	BOHO_C2_00 18
T400	Sign	7	Yes	0.01	BOHO_C2_15 01
T400	Sign	1	No	0.06	BOHO_C2_00 19
T400	Begin Section	1	No	0.10	BOHO_C2_00 20
T400	Begin Section	1	No	0.11	BOHO_C2_00 24
T400	Bench	1	No	0.12	
T400	Sign	1	No	0.12	BOHO_C2_00 21
T400	Sign	1	No	0.13	BOHO_C2_00 22
T400	Sign	1	No	0.13	BOHO_C2_00 23
T400	Lookout/Ob Deck	1	No	0.13	
T400	Begin Section	1	No	0.13	BOHO_C2_00 25
T400	Lookout/Ob Deck	1	No	0.13	

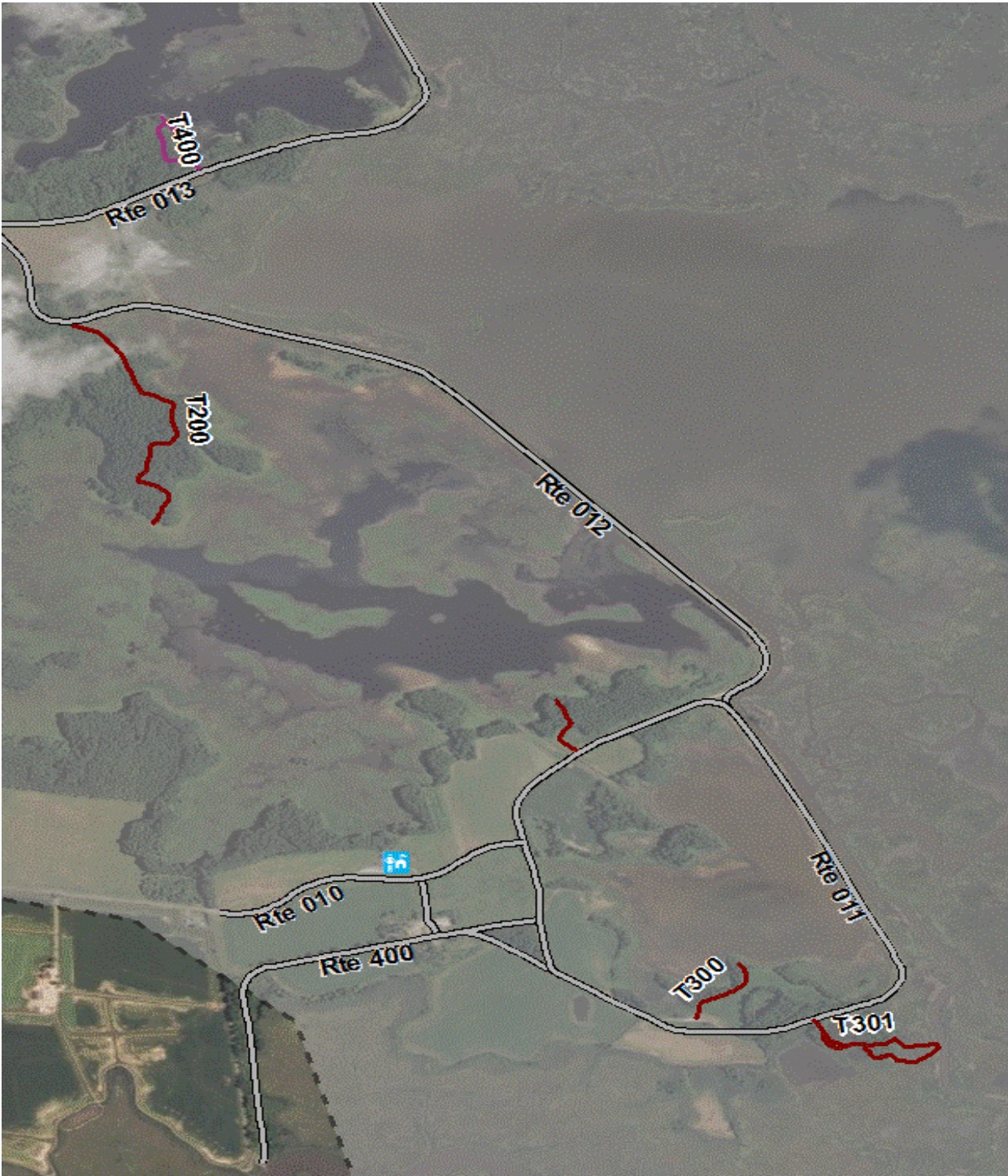
sf - square feet


lf - linear feet


cf - cubic feet


Bombay Hook NWR

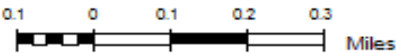
Trail Location Map





**Station Boundary**

**HQ/VC**



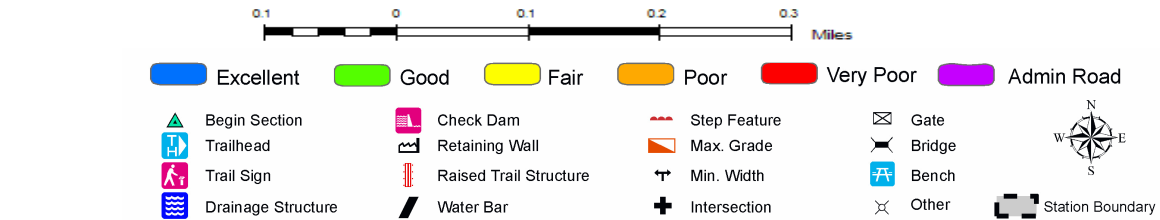
Trails ID

Station Name: Bombay Hook NWR

Org Code: 51550

Trail Number	Trail Name	Surface Type	SAMMS	Trail Mileage	Trail Description (Begin and End point of trail)
T200	Parson Point Trail	Native	10020955	0.54	From Dutch Neck Road (Rte 012) at MP 1.4 to Dead end
T300	Raymond Observation Tower Trail	Mowed	10020957	0.15	From Raymond Observation Tower Parking (Rte 901) to Raymond Observation Tower
T301	Boardwalk Trail	Boardwalk	10020937	0.23	From Raymond Pool Loop (Rte 011) at MP 0.6 to End of Loop at Sec 001
T301	Boardwalk Trail	Gravel	10020937	0.18	From Raymond Pool Loop (Rte 011) at MP 0.6 to End of Loop at Sec 001
T302	Shearness Observation Tower Trail	Mowed	10020956	0.12	From Shearness Observation Tower Parking (Rte 902) to Shearness Observation Tower
T400	Bear Swamp Trail	Boardwalk	10020958	0.05	From Bear Swamp Trail Handicap Parking (Rte 907) to End of Loop at Sec 001
T400	Bear Swamp Trail	Gravel	10020958	0.21	From Bear Swamp Trail Handicap Parking (Rte 907) to End of Loop at Sec 001

TRAIL CONDITION



Trail Name: Parson Point Trail
Trail Number: T200

Refuge Name: Bombay Hook NWR
Region: 5

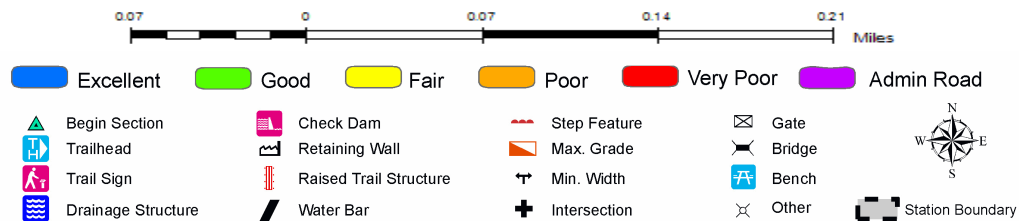
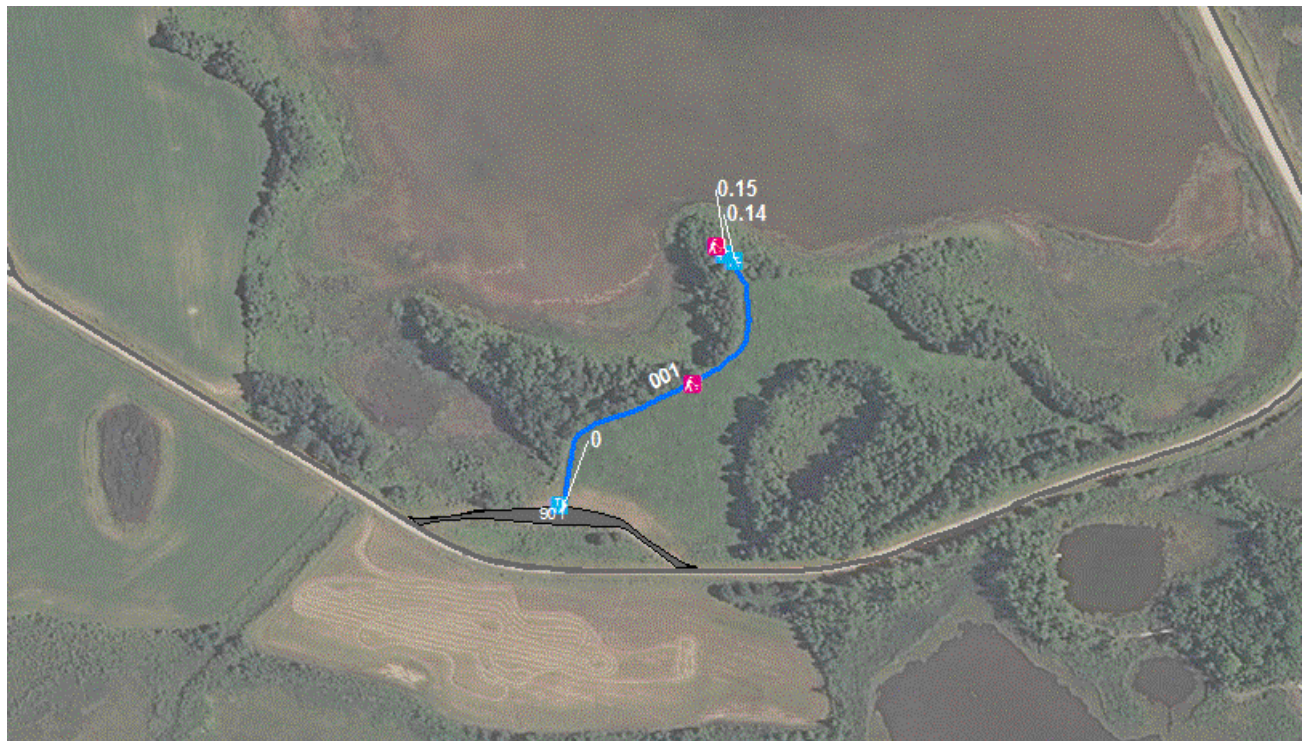
Total Length: 0.54 Miles

Section Number	001
Section Length (miles)	0.54
SAMMS Number	10020955
Rating Date	05/25/2006
Trail Section Information	
Trail Class	TC2
Surface Type	Native
Surface Firmness	Firm
Width (inches)	30
Average Grade (%)	1.3
Average X-slope (%)	3.10
Trail Condition Information	
Deferred Maintenance	
CRV	\$36,977
FCI	0.00
Condition	Excellent

Trail Condition TOTALS

Deferred Maintenance	CRV	FCI	Condition
	\$36,977	0.00	Excellent

TRAIL CONDITION



Trail Name: Raymond Observation Tower Trail **Refuge Name:** Bombay Hook NWR

Trail Number: T300

Region: 5

Total Length: 0.15 Miles

Section Number	001
Section Length (miles)	0.15
SAMMS Number	10020957
Rating Date	05/25/2006
Trail Section Information	
Trail Class	TC3
Surface Type	Mowed
Surface Firmness	Firm
Width (inches)	72
Average Grade (%)	1.9
Average X-slope (%)	1.50
Trail Condition Information	
Deferred Maintenance	
CRV	\$6,163
FCI	0.00
Condition	Excellent

Trail Condition TOTALS

Deferred Maintenance	CRV	FCI	Condition
	\$6,163	0.00	Excellent

TRAIL CONDITION



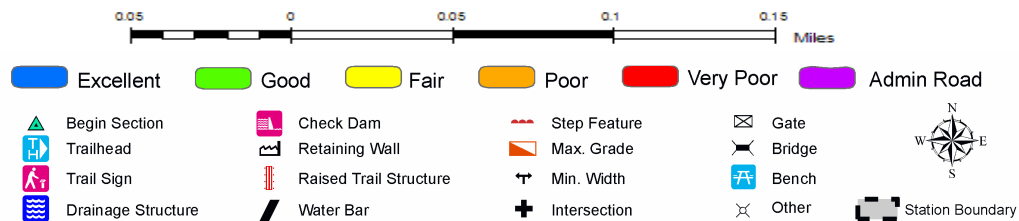
Trail Name: Boardwalk Trail
Trail Number: T301

Refuge Name: Bombay Hook NWR
Region: 5

Total Length: 0.41 Miles

Section Number	001	002	003	004	005
Section Length (miles)	0.01	0.06	0.02	0.05	0.20
SAMMS Number	10020937	10020937	10020937	10020937	10020937
Rating Date	05/25/2006	05/25/2006	05/25/2006	05/25/2006	05/25/2006
Trail Section Information					
Trail Class	TC5	TC4	TC5	TC4	TC5
Surface Type	Boardwalk	Gravel	Boardwalk	Gravel	Boardwalk
Surface Firmness	Boardwalk	Firm	Boardwalk	Firm	Boardwalk
Width (inches)	60	40	60	40	60
Average Grade (%)	3.7	3.7	3.7	3.7	3.7
Average X-slope (%)	1.40	1.40	1.40	1.40	1.40
Trail Condition Information					
Deferred Maintenance					
CRV	\$7,404	\$5,976	\$14,809	\$4,980	\$148,089
FCI	0.00	0.00	0.00	0.00	0.00
Condition	Excellent	Excellent	Excellent	Excellent	Excellent

TRAIL CONDITION



Trail Name: Boardwalk Trail
Trail Number: T301

Refuge Name: Bombay Hook NWR
Region: 5

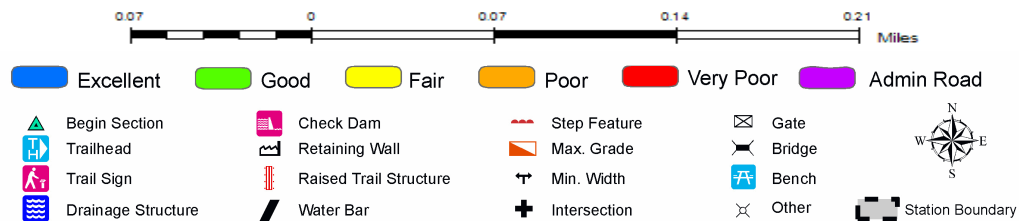
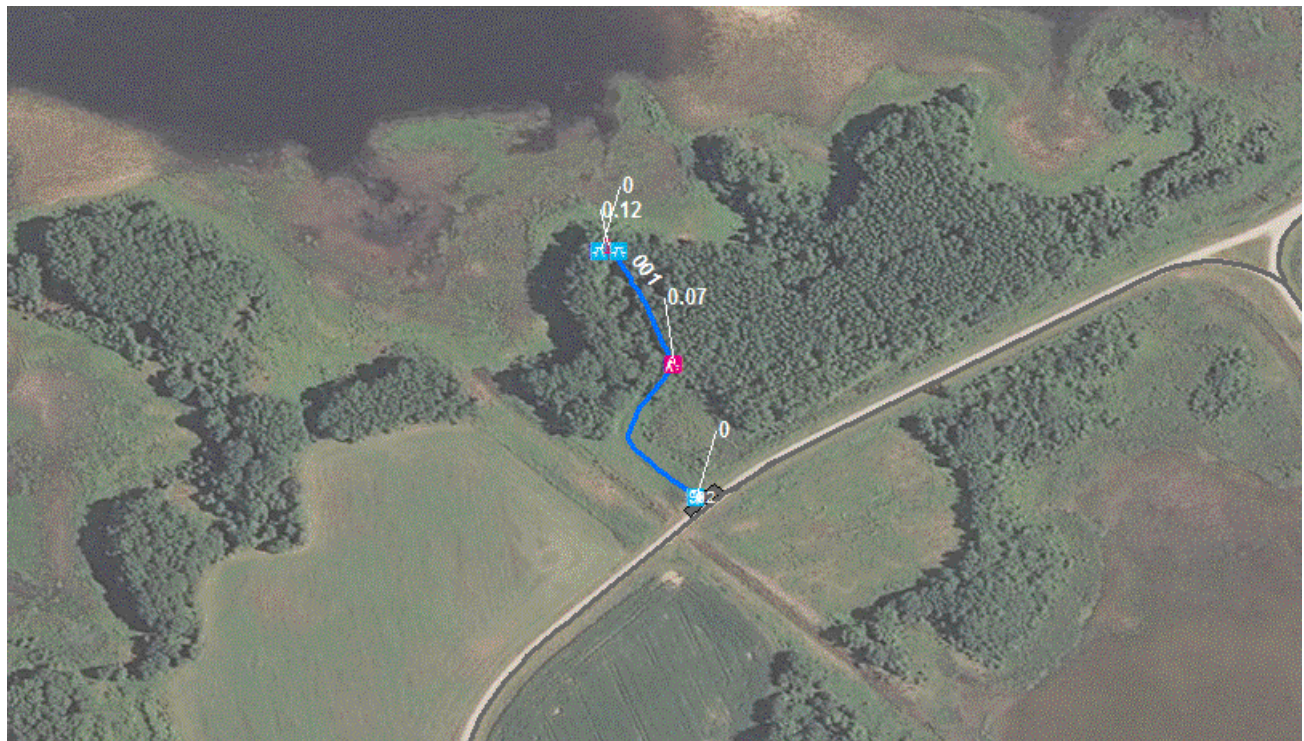
Total Length: 0.41 Miles

Section Number	006	007
Section Length (miles)	0.02	0.05
SAMMS Number	10020937	10020937
Rating Date	05/25/2006	05/25/2006
Trail Section Information		
Trail Class	TC4	TC4
Surface Type	Gravel	Gravel
Surface Firmness	Firm	Firm
Width (inches)	40	40
Average Grade (%)	3.7	3.7
Average X-slope (%)	1.40	1.40
Trail Condition Information		
Deferred Maintenance		\$0
CRV	\$1,992	\$4,980
FCI	0.00	0.00
Condition	Excellent	Excellent

Trail Condition TOTALS

Deferred Maintenance	CRV	FCI	Condition
\$0	\$188,230	0.00	Excellent

TRAIL CONDITION



Trail Name: Shearerness Observation Tower Trail **Refuge Name:** Bombay Hook NWR

Trail Number: T302

Region: 5

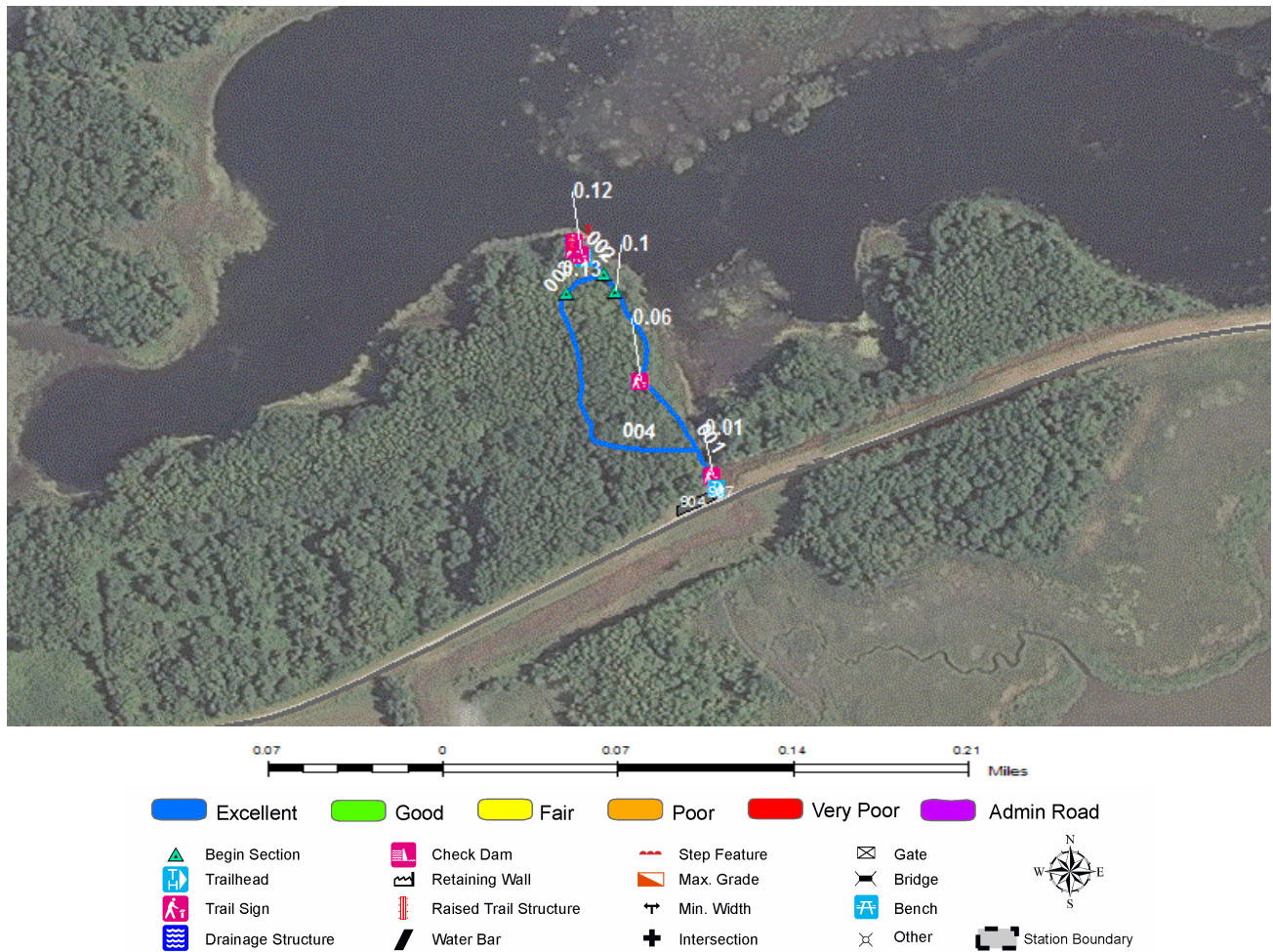
Total Length: 0.12 Miles

Section Number	001
Section Length (miles)	0.12
SAMMS Number	10020956
Rating Date	05/25/2006
Trail Section Information	
Trail Class	TC3
Surface Type	Mowed
Surface Firmness	Firm
Width (inches)	72
Average Grade (%)	2.0
Average X-slope (%)	3.70
Trail Condition Information	
Deferred Maintenance	
CRV	\$4,931
FCI	0.00
Condition	Excellent

Trail Condition TOTALS

Deferred Maintenance	CRV	FCI	Condition
	\$4,931	0.00	Excellent

TRAIL CONDITION



Trail Name: Bear Swamp Trail
Trail Number: T400

Refuge Name: Bombay Hook NWR
Region: 5

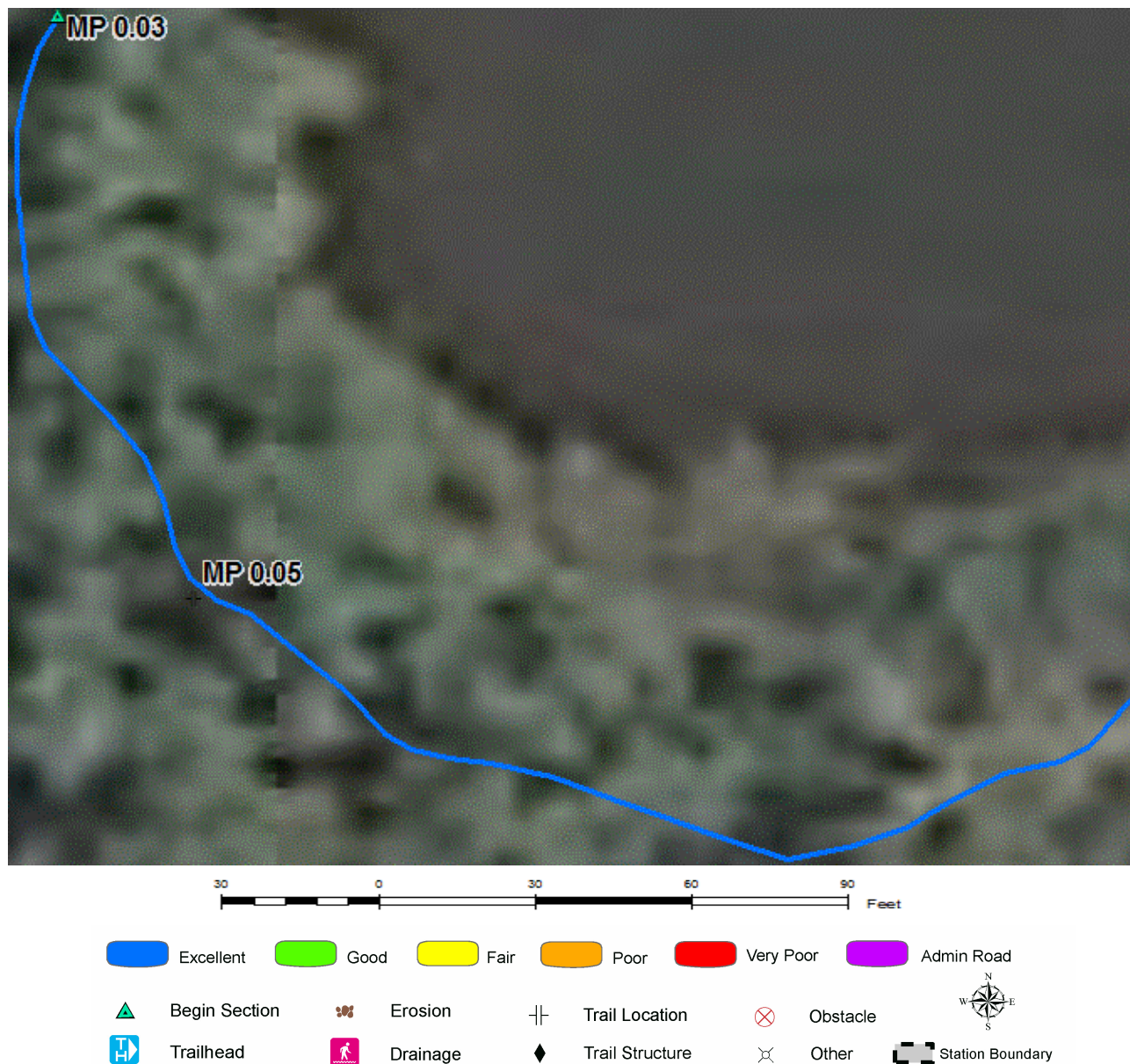
Total Length: 0.26 Miles

Section Number	001	002	003	004
Section Length (miles)	0.10	0.03	0.02	0.11
SAMMS Number	10020958	10020958	10020958	10020958
Rating Date	05/25/2006	05/25/2006	05/25/2006	05/25/2006
Trail Section Information				
Trail Class	TC4	TC4	TC4	TC4
Surface Type	Gravel	Boardwalk	Boardwalk	Gravel
Surface Firmness	Firm	Hard	Hard	Firm
Width (inches)	60	60	60	60
Average Grade (%)	1.8	1.8	1.8	1.8
Average X-slope (%)	3.20	3.20	3.20	3.20
Trail Condition Information				
Deferred Maintenance				
CRV	\$14,940	\$22,213	\$14,809	\$16,434
FCI	0.00	0.00	0.00	0.00
Condition	Excellent	Excellent	Excellent	Excellent

Trail Condition TOTALS

Deferred Maintenance	CRV	FCI	Condition
	\$68,397	0.00	Excellent

TRAIL DEFICIENCY



Trail Name: Boardwalk Trail

Trail Number: T301

Refuge Name: Bombay Hook NWR

Region: 5

Total Length: 0.41 Miles

Mile Post	0.05
Section Number	007
Photo Number	BOHO_C2_9256
Deficiency	Trail Location
Action	Remove
Item	Trail: Social -lf
Quantity	30
Deferred Maintenance	\$0

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T200
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9257 - MP 0.00 - Other

TRAIL NUMBER: T200
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0014 - MP 0.00 - Sign

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T200

STATION: Bombay Hook NWR

DATE: 05/25/2006



Photo # BOHO_C2_0015 - MP 0.00 - Sign

TRAIL NUMBER: T200

STATION: Bombay Hook NWR

DATE: 05/25/2006



Photo # BOHO_C2_0016 - MP 0.00 - Trailhead

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T200

STATION: Bombay Hook NWR

DATE: 05/25/2006



Photo # BOHO_C2_0017 - MP 0.19 - Sign

TRAIL NUMBER: T300

STATION: Bombay Hook NWR

DATE: 05/10/2011



Photo # BOHO_C2_0250 - MP 0.00 - Other

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T300
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0001 - MP 0.00 - Trailhead

TRAIL NUMBER: T300
STATION: Bombay Hook NWR
DATE: 05/25/2006

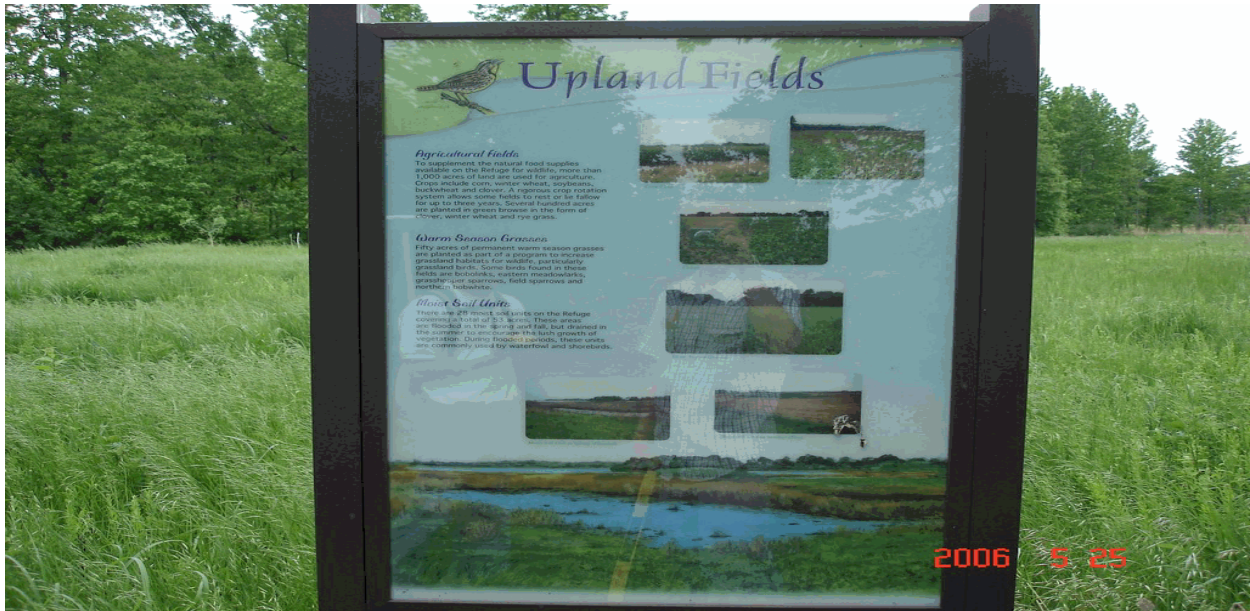


Photo # BOHO_C2_0002 - MP 0.08 - Sign

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T300
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0003 - MP 0.15 - Sign

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_0251 - MP 0.00 - Other

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0005 - MP 0.00 - Sign

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0004 - MP 0.00 - Trailhead

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9246 - MP 0.01 - Begin Section

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9248 - MP 0.03 - Sign

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9249 - MP 0.05 - Begin Section

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9250 - MP 0.09 - Begin Section

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9251 - MP 0.14 - Begin Section

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9253 - MP 0.22 - Sign

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9254 - MP 0.34 - Begin Section

TRAIL NUMBER: T301
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0010 - MP 0.03 - Begin Section

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T302
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9259 - MP 0.00 - Other

TRAIL NUMBER: T302
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0011 - MP 0.00 - Trailhead

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T302
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0012 - MP 0.07 - Sign

TRAIL NUMBER: T400
STATION: Bombay Hook NWR
DATE: 05/10/2011



Photo # BOHO_C2_9258 - MP 0.00 - Other

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T400
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0018 - MP 0.00 - Trailhead

TRAIL NUMBER: T400
STATION: Bombay Hook NWR
DATE: 10/11/2011



Photo # BOHO_C2_1501 - MP 0.01 - Sign

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T400

STATION: Bombay Hook NWR

DATE: 05/25/2006



Photo # BOHO_C2_0019 - MP 0.06 - Sign

TRAIL NUMBER: T400

STATION: Bombay Hook NWR

DATE: 05/25/2006



Photo # BOHO_C2_0020 - MP 0.10 - Begin Section

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T400
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0021 - MP 0.12 - Sign

TRAIL NUMBER: T400
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0022 - MP 0.13 - Sign

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T400
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0023 - MP 0.13 - Sign

TRAIL NUMBER: T400
STATION: Bombay Hook NWR
DATE: 05/25/2006



Photo # BOHO_C2_0024 - MP 0.11 - Begin Section

PHOTOGRAPHIC SHEET

TRAIL NUMBER: T400

STATION: Bombay Hook NWR

DATE: 05/25/2006



Photo # BOHO_C2_0025 - MP 0.13 - Begin Section

Glossary of Terms and Abbreviations

Acc Info	Accessibility information available at trailhead.
Action	Action required to correct deficiency.
Admin Road	Administration Road. Admin Roads signed and advertised as trails are included in the trail inventory but a condition assessment is NOT done.
Alt SAMMS	SAMMS number of Alternate Facility Type.
Alt Type	Alternate Facility Type. Trail lies on a feature such as a levee, dam, administrative road or bridge, which has a separate SAMMS number.
AvgGrade	The average grade of the trail (%). The average of five measurements for trails less than two miles and ten measurements for trails equal to or greater than 2 miles.
AvgSlope	The average cross-slope of the trail (%). The average of five measurements for trails less than two miles and ten measurements for trails equal to or greater than 2 miles.
Check Dam	A small dam constructed across a drainage ditch, swale, or channel to lower the speed of concentrated flows.
Condition	Subjective rating of trail based on Facility Condition Index (FCI): FCI \leq .01 = Excellent FCI .02 - .05 = Good FCI .06 - .10 = Fair FCI .11 - .20 = Poor FCI $>$.20 = Failed
Crib Wall	Retaining wall.
Current Replacement Value (CRV)	The value of an asset determined by the estimated cost of replacing it.
Def type	Deficiency Type: Trail Structure, Drainage, Erosion, Obstacle, Trail Location, Other.
Deferred Maintenance (DM)	Maintenance that was not performed when scheduled.

Elem ID	Unique identifier for each trail section: Org Code-Trail Number-Section Number.
Facility Condition Index (FCI)	DM/CRV
Grouped Features	Grouped features include non-unique signs (mileposts, interpretive signs, species identification, etc.), water bars, check dams, steps, drain and drainage dips. For any given grouped feature, a GPS point and photo are taken for the first occurrence only and the total number of features in the group are entered into the “quantity” field of the data dictionary.
Info Type	Type of accessibility information available at trailhead: brochure, sign or other.
Item	Item on which the “Action” (see above) will be performed.
Manage_Use	Managed use of the trail: HIKE, BIKE, NSPC (non-specified), PACK, POR (portage), SNOWSHOE, XSKI (cross-country ski), OTHER.
MP	Distance of a trail feature or deficiency from the Trailhead.
Puncheon	Log footbridge used in area of poor drainage.
Raised Trail Structure	Boardwalk, Turnpike, Puncheon.
T Class	Trail Class: I-V (see Appendix ? for trail class descriptions).
Tr Desig	Trail Designation: Standard (Std), National Historic Trail (NHT), National Recreation Trail (NRT), National Scenic Trail (NST).
Turnpike	Trail tread elevated with dirt, rock or other aggregate from parallel side ditches and held in place by logs.